PORTAL USPTO

Subscribe (Full Service) Register (Limited Service, Free) Login

Search: The ACM Digital Library The Guide

SEARCH

THE ACM DIGITAL LIBRARY

Feedback

(random and number and matrix and "multiple recursive")
Terms used: **random number matrix multiple recursive**

Found **22** of **245,317**

Sort results by: relevance

Display results: expanded form

Save results to a Binder

Refine these results with Advanced Search

Open results in a new window

Try this search in The ACM Guide

Results 1 - 20 of 22 Result page: 1 2 next >>

1 Getting rid of correlations among pseudorandom numbers: discarding versus tempering

Stefan Wegenkittl, Makoto Matsumoto
July 1999 ACM Transactions on Modeling and Computer Simulation (TOMACS), Volume 9 Issue 3
Publisher: ACM
Full text available: pdf(134.11 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 2, Downloads (12 Months): 27, Citation Count: 2

We consider the impact of discarding and tempering on modern huge period high speed linear generators, and illustrate how a simple strategy yields unexpected &mdashh; and unwanted — success in a fair coin gambling which is simulated by a recently ...

Keywords: correlation analysis, discarding, empirical tests, gambling test, pseudorandom number generator, tempering

2 Fast random number generators based on linear recurrences modulo 2: overview and comparison

Pierre L'Ecuyer, François Panneton
December 2005 WSC '05: Proceedings of the 37th conference on Winter simulation
Publisher: Winter Simulation Conference
Full text available: pdf(190.26 KB) Additional Information: full citation, abstract, references

Bibliometrics: Downloads (6 Weeks): 3, Downloads (12 Months): 70, Citation Count: 0

Random number generators based on linear recurrences modulo 2 are among the fastest long-period generators currently available. The uniformity and independence of the points they produce, over their entire period length, can be measured by theoretical ...

3 Uniform random number generators

Pierre L'Ecuyer
December 1998 WSC '98: Proceedings of the 30th conference on Winter simulation
Publisher: IEEE Computer Society Press
Full text available: pdf(101.99 KB) Additional Information: full citation, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 11, Downloads (12 Months): 97, Citation Count: 3

4 Pseudorandom number generation on the GPU

M. Sussman, W. Crutchfield, M. Papakipos
September 2006 GH '06: Proceedings of the 21st ACM SIGGRAPH/Eurographics symposium on Graphics hardware
Publisher: ACM
Full text available: Publisher Site Additional Information: full citation, abstract, references, index terms

Bibliometrics: Downloads (6 Weeks): n/a, Downloads (12 Months): n/a, Citation Count: 0

Statistical algorithms such as Monte Carlo integration are good candidates to run on graphics processing units. The heart of these algorithms is random number generation, which generally has been done on the CPU. In this paper we present GPU implementations ...

5 Uniform random number generators: a review

Pierre L'Ecuyer
December 1997 WSC '97: Proceedings of the 29th conference on Winter simulation
Publisher: IEEE Computer Society
Full text available: pdf(927.24 KB) Additional Information: full citation, references, index terms

Bibliometrics: Downloads (6 Weeks): 4, Downloads (12 Months): 93, Citation Count: 0

6 Random numbers for simulation

Pierre L'Ecuyer
October 1990 Communications of the ACM, Volume 33 Issue 10
Publisher: ACM
Full text available: pdf(2.82 MB) Additional Information: full citation, abstract, references, cited by, index terms, review

Bibliometrics: Downloads (6 Weeks): 9, Downloads (12 Months): 119, Citation Count: 21

In the mind of the average computer user, the problem of generating uniform variates by computer has been solved long ago. After all, every computer :system offers one or more function(s) to do so. Many software products, like compilers, spreadsheets, ...

7 Some linear and nonlinear methods for pseudorandom number generation

Harald Niederreiter
December 1995 WSC '95: Proceedings of the 27th conference on Winter simulation
Publisher: IEEE Computer Society
Full text available: pdf(390.20 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 1, Downloads (12 Months): 20, Citation Count: 1

Two principal classes of methods for the generation of uniform pseudorandom numbers can nowadays be distinguished, namely linear and nonlinear methods, and contributions to both types of methods are presented. A very general linear method, the multiple-recursive ...

8 On the xorshift random number generators

François Panneton, Pierre L'ecuyer

October 2005 ACM Transactions on Modeling and Computer Simulation (TOMACS), Volume 15 Issue 4

Publisher: ACM

Full text available: pdf(193.79 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 6, Downloads (12 Months): 114, Citation Count: 2

G. Marsaglia recently introduced a class of very fast *xorshift* random number generators, whose implementation uses three “xorshift” operations. They belong to a large family of generators based on linear recurrences modulo 2, which ...

Keywords: Random number generation, linear feedback shift register, linear recurrence modulo 2, xorshift

9 Mersenne twister: a 623-dimensionally equidistributed uniform pseudo-random number generator

Makoto Matsumoto, Takuji Nishimura

January 1998 ACM Transactions on Modeling and Computer Simulation (TOMACS), Volume 8 Issue 1

Publisher: ACM

Full text available: pdf(247.73 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 61, Downloads (12 Months): 621, Citation Count: 67

A new algorithm called Mersenne Twister (MT) is proposed for generating uniform pseudorandom numbers. For a particular choice of parameters, the algorithm provides a super astronomical period of 219937 –1 and 623-dimensional ...

Keywords: k-distribution, m-sequences, GFSR, MT19937, Mersenne primes, Mersenne twister, TGFSR, finite fields, incomplete array, inversive-decimation method, multiple-recursive matrix method, primitive polynomials, random number generation, tempering

10 TestU01: A C library for empirical testing of random number generators

Pierre L'Ecuyer, Richard Simard

August 2007 ACM Transactions on Mathematical Software (TOMS), Volume 33 Issue 4

Publisher: ACM

Full text available: pdf(801.63 KB) Additional Information: full citation, abstract, references, index terms

Bibliometrics: Downloads (6 Weeks): 23, Downloads (12 Months): 361, Citation Count: 0

We introduce *TestU01*, a software library implemented in the ANSI C language, and offering a collection of utilities for the empirical statistical testing of uniform random number generators (RNGs). It provides general implementations of the classical ...

Keywords: Statistical software, random number generators, random number tests, statistical test

11 Tables of 64-bit Mersenne twisters

Takuji Nishimura

October 2000 ACM Transactions on Modeling and Computer Simulation (TOMACS), Volume 10 Issue 4

Publisher: ACM

Full text available: pdf(79.56 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 6, Downloads (12 Months): 37, Citation Count: 3

We give new parameters for a Mersenne Twister pseudorandom number gene rator for 64-bit word machines.

Keywords: 64-bit, k-distribution, Mersenne Twister, finite fields, linear recurrence, random rumber generation

12 Algorithm 806: SPRNG: a scalable library for pseudorandom number generation

Michael Mascagni, Ashok Srinivasan

September 2000 ACM Transactions on Mathematical Software (TOMS), Volume 26 Issue 3

Publisher: ACM

Full text available: pdf(158.69 KB) Additional Information: full citation, appendices and supplements, abstract, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 11, Downloads (12 Months): 229, Citation Count: 9

In this article we present background, rationale, and a description of the Scalable Parallel Random Number Generators (SPRNG) library. We begin by presenting some methods for parallel pseudorandom number generation. We will focus on methods based on ...

Keywords: lagged-Fibonacci generator, linear congruential generator, parallel random-number generators, random-number software, random-number tests

13 Improved long-period generators based on linear recurrences modulo 2

François Panneton, Pierre L'Ecuyer, Makoto Matsumoto
March 2006 ACM Transactions on Mathematical Software (TOMS), Volume 32 Issue 1
Publisher: ACM

Full text available: pdf(302.66 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 17, Downloads (12 Months): 92, Citation Count: 3

Fast uniform random number generators with extremely long periods have been defined and implemented based on linear recurrences modulo 2. The twisted GFSR and the Mersenne twister are famous recent examples. Besides the period length, the statistical ...

Keywords: GFSR linear recurrence modulo 2, Mersenne twister, Random number generation, linear feedback shift register

14 A tutorial on uniform variate generation

P. L'Ecuyer
October 1989 WSC '89: Proceedings of the 21st conference on Winter simulation
Publisher: ACM

Full text available: pdf(777.59 KB) Additional Information: full citation, abstract, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 6, Downloads (12 Months): 37, Citation Count: 3

In typical stochastic simulations, randomness is produced by generating a sequence of independent uniform variates (usually real-valued between 0 and 1, or integer-valued in some interval) and transforming them in the appropriate way. In this tutorial, ...

15 VV&A: IV: validation of trace-driven simulation models: more on bootstrap tests

Jack P. C. Kleijnen, Russell C. H. Cheng, Bert Bettonvil
December 2000 WSC '00: Proceedings of the 32nd conference on Winter simulation
Publisher: Society for Computer Simulation International
Full text available: pdf(331.46 KB) Additional Information: full citation, abstract, references, cited by

Bibliometrics: Downloads (6 Weeks): 1, Downloads (12 Months): 16, Citation Count: 3

'Trace-driven' or 'correlated inspection' simulation means that the simulated and the real systems have some common inputs (say, arrival times) so the two systems' outputs are cross-correlated. To validate such simulation models, this paper formulates ...

16 Simulation 101 software: workshop and beyond

Barry Lawson, Lawrence Leemis
December 2007 WSC '07: Proceedings of the 39th conference on Winter simulation: 40 years! The best is yet to come
Publisher: IEEE Press
Full text available: pdf(129.66 KB) Additional Information: full citation, abstract, references

Bibliometrics: Downloads (6 Weeks): 7, Downloads (12 Months): 7, Citation Count: 0

The C source code associated with the Simulation 101 pre-conference workshop (offered at the 2006 and 2007 Winter Simulation Conferences) is presented here. This paper begins with general instructions for downloading, compiling, and executing the software. ...

17 The Push3 execution stack and the evolution of control

Lee Spector, Jon Klein, Maarten Keijzer
June 2005 GECCO '05: Proceedings of the 2005 conference on Genetic and evolutionary computation
Publisher: ACM
Full text available: pdf(145.94 KB) Additional Information: full citation, abstract, references, index terms

Bibliometrics: Downloads (6 Weeks): 1, Downloads (12 Months): 32, Citation Count: 2

The Push programming language was developed for use in genetic and evolutionary computation systems, as the representation within which evolving programs are expressed. It has been used in the production of several significant results, including results ...

Keywords: Fibonacci sequence, combinators, exponentiation, factorial, iteration, parity, push, recursion, reversing a list, sorting, stack-based genetic programming

18 Quasi-Monte Carlo methods in finance

Pierre L'Ecuyer
December 2004 WSC '04: Proceedings of the 36th conference on Winter simulation
Publisher: Winter Simulation Conference

Full text available: pdf(237.49 KB) Additional Information: full citation, abstract, references, cited by

Bibliometrics: Downloads (6 Weeks): 7, Downloads (12 Months): 95, Citation Count: 4

We review the basic principles of Quasi-Monte Carlo (QMC) methods, the randomizations that turn them into variance-reduction techniques, and the main classes of constructions underlying their implementations: lattice rules, digital nets, and permutations ...

19 Monkeys, gambling, and return times: assessing pseudorandomness

Stefan Wegenkittl
December 1999 WSC '99: Proceedings of the 31st conference on Winter simulation: Simulation---a bridge to the future - Volume 1, Volume 1
Publisher: ACM

Full text available: pdf(78.93 KB) Additional Information: full citation, references, cited by, index terms

Bibliometrics: Downloads (6 Weeks): 0, Downloads (12 Months): 16, Citation Count: 1

20 Jackknife estimators for reducing bias in asset allocation

Amit Partani, David P. Morton, Ivilina Popova
December 2006 WSC '06: Proceedings of the 38th conference on Winter simulation
Publisher: Winter Simulation Conference

Full text available: pdf(204.24 KB) Additional Information: full citation, abstract, references

Bibliometrics: Downloads (6 Weeks): 1, Downloads (12 Months): 33, Citation Count: 0

We use jackknife-based estimators to reduce bias when estimating the optimal value of a stochastic program. Our discussion focuses on an asset allocation model with a power utility function. As we will describe, estimating the optimal value of such a ...

Results 1 - 20 of 22 Result page: 1 2 next >>

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2008 ACM, Inc.

Terms of Usage Privacy Policy Code of Ethics Contact Us

Useful downloads: Adobe Acrobat QuickTime Windows Media Player Real Player